## **ABSTRACT**

5 A method for generating a signal having a frame structure, each frame of the frame structure comprising at least one useful symbol, a guard interval associated to the at least one useful symbol and a reference symbol, comprises steps of performing an amplitude modulation of a bit 10 quence such that the envelope of the amplitude modulated bit sequence defines a reference pattern of the reference symbol and inserting the amplitude modulated bit sequence into said signal as said reference symbol. A method for frame synchronization of a signal having such a frame structure comprises 15 the steps of receiving the signal, down-converting the received signal, performing an amplitude-demodulation of the down-converted signal in order to generate an envelope, correlating the envelope with a predetermined reference pattern in order to detect a signal reference pattern of the refer-20 ence symbol in the signal, and performing the frame synchronization based on the detection of the signal reference pattern.